



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/649,195	08/28/2000	Stephen J. Whitney	0112690-004	7963
29176	7590	02/13/2004	EXAMINER	
BELL, BOYD & LLOYD LLC P. O. BOX 1135 CHICAGO, IL 60690-1135			LAXTON, GARY L	
			ART UNIT	PAPER NUMBER
			2838	

DATE MAILED: 02/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/649,195	WHITNEY, STEPHEN J.	
	Examiner	Art Unit	
	Gary L. Laxton	2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 13, 15, 16, 20, 23, 24, 26 and 30 is/are rejected.
- 7) ☒ Claim(s) 11, 12, 14, 17-19, 21, 22, 25, 27-29 and 31-35 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Response to Arguments***

1. Applicant's arguments filed 11/03/03 have been fully considered but they are not persuasive.

For claim 1, the applicant argues that the plurality of connecting plugs 66 could not be characterized as being part of the surge absorber 28. The examiner respectfully disagrees, when the base 64 and socket 63 are coupled together the device serves as one unit and is to be connected to the circuit to be protected. However, regardless of the base 64, the surge absorber 28 is still directly connected to the circuit to be protected through the terminals 66a-c. The terminals 66a-c therefore, become part of the surge absorber through their direct connection. And therefore, part of the overvoltage protection portion (70b) does actually serve as one of the plurality of terminals to be connected to the circuit to be protected.

The examiner also disagrees with the applicant's argument for claim 13. The break shown in figure 14 does not disqualify the terminal A' from being the third terminal. Furthermore, base 64 and/or socket 63 provide a direct connection with the surge absorber, thus constituting a direct connection with the circuit to be protected. Thus, providing the part of the overvoltage protection portion serving as the third terminal. For the reasons stated above the rejections with regard to Oguchi et al are maintained.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 5-10, 13, 15, 20, 23, 24, 26 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Oguchi et al.

Claims 1, 3, 9, and 10; integral circuit protection device (figure 16) with overcurrent fuse (figures 15/19; 60 with fuse 56), overvoltage (28), plurality of terminals (66a-d), circuit to be protected (30), as shown in figure 16 a part of the overvoltage protection portion of 28 serves as one of the terminals (figures 15/19; A' and 28), and substrate 64.

Claims 2 and 8; figures 2/5/14, first terminal A', second terminal A, third terminal 28a. overvoltage portion is also connected to terminal 2 through 28b and 22 and 23. Second and third terminal are on the same side. See figures 2/5/14.

Claim 5. The overcurrent is in series and the overvoltage is in parallel. See figure 15.

Claims 6 and 7; figure 15, thermally conductive portion 13.

Claims 13, 15, 23, 24, 26 and 30; figure 15, overcurrent device (10) between first terminal (A) and second terminal (conductor connected from the node between 56 and 13 and circuit 30), mounting member 64, overvoltage device (28) connected to the second terminal through 13 and connected to a third terminal A', terminal 28b serves as a part of

Art Unit: 2838

the overvoltage voltage that is the third terminal. See for example figure 14 (28b and A').

Fuse figure 15 (56).

Claim 20; the overcurrent is in series and the overvoltage is in parallel. See figure 15.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oguchi et al.

Oguchi et al disclose the claimed invention as stated above, claims 4 and 16 add the limitation wherein the overvoltage portion includes a bi-directional thyristor.

The acknowledged prior art discloses on page 1 of the specification and in figure 1 that it is well known to use a bi-directional thyristor 110 in combinations with a fuse for protecting a communication circuit against overvoltage. It would have been obvious to a person having ordinary skill in the art at the time of the invention was made to modify the device of Oguchi et al and use a well known bi-directional thyristor for the overvoltage portion as taught by the acknowledged prior art since it is well known that such devices provide excellent overvoltage protection in communication circuits.

Allowable Subject Matter

6. Claims 11, 12, 14, 17-19, 21, 22, 25, 27-29 and 31-35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

Claim 11 and 12; prior art fails to disclose or suggest, inter alia, an integral circuit protection having a second overcurrent protection portion; a second overvoltage protection portion; fourth and fifth terminals as part of the plurality of terminals; and wherein the second overcurrent protection portion is electrically connected between the fourth and fifth terminals, the second overvoltage protection portion is connected to the fifth terminal, a part of the second overvoltage protection portion jointly serves as the third terminal, and the third terminal is connected to ground.

Claim 14; prior art fails to disclose or suggest, inter alia, an integral circuit protection having an overcurrent protection device disposed within the inner hollow portion of the tube, and each of the overvoltage protection device, the first terminal and the second terminal is disposed on the outer surface of the tube.

Claims 17 and 18; prior art fails to disclose or suggest, inter alia, an integral circuit protection wherein the tube further has a first end and a second end, the first terminal being disposed at the first end, and the second terminal being disposed at the second end opposite from the first terminal.

Art Unit: 2838

Claim 19; prior art fails to disclose or suggest, inter alia, an integral circuit protection having an integrally formed bond pad and connector piece connected between the second terminal and the overvoltage protection device.

Claim 21; prior art fails to disclose or suggest, inter alia, an integral circuit protection having a substrate having first and second surfaces; and a plurality of wire terminations disposed on at least one of the first and second surfaces, wherein at least the first and second terminals are each respectively comprised of one of the plurality of wire terminations.

Claim 22; prior art fails to disclose or suggest, inter alia, an integral circuit protection having the overcurrent protection device comprised of a fuse element electrically connected between the first and second terminals and disposed on at least one side of the substrate, and the overvoltage protection device is comprised of a thyristor electrically connected to the second terminal and disposed on at least one side of the substrate.

Claim 25; prior art fails to disclose or suggest, inter alia, an integral circuit protection having an integrally formed bond pad and connector piece connected between the second terminal and the overvoltage protection device.

Claim 27; prior art fails to disclose or suggest, inter alia, an integral circuit protection having the circuit element formed as a discrete component for mounting on a printed circuit board, and wherein the first, second and third terminals contact a surface of the printed circuit board upon placement thereon.

Claims 28 and 29; prior art fails to disclose or suggest, inter alia, an integral circuit protection having a second overcurrent protection device, a second overvoltage

Art Unit: 2838

protection device; fourth and fifth terminals; and wherein the second overcurrent protection device is electrically connected between the fourth and fifth terminals, the second overvoltage protection device is connected to the fifth terminal, a part of the second overvoltage protection device jointly serves as the third terminal, and the third terminal is connected to ground.

Claim 31; prior art fails to disclose or suggest, inter alia, a method for providing an overcurrent and overvoltage device in a telecommunications circuit, comprising the overcurrent protection element is connected in series with a telecommunications circuit, and electrically connecting the third terminal to a second incoming line to the telecommunications circuit such that the overvoltage protection element is connected in parallel with the telecommunications circuit.

Claims 32-35; prior art fails to disclose or suggest, inter alia, a method for providing an overcurrent and overvoltage device in a telecommunications circuit, comprising the mounting member with both a second overcurrent protection element and a second overvoltage protection element; and disposing the second overcurrent and overvoltage protection elements within the mounting member such that the second overcurrent protection element is electrically connected between fourth and fifth terminals of the plurality of terminals and the second overvoltage protection element is electrically connected between the third and fifth terminals of the plurality of terminals.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

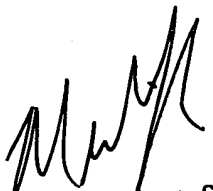
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 2838

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary L. Laxton whose telephone number is (571) 272-2079. The examiner can normally be reached on Monday thru Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on (571) 272-2084. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 2/9/04
MICHAEL SHERRY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

Gary L. Laxton
Patent Examiner
Art Unit 2838

GLL